CLAIMS

What is claimed is:

1. A method, in an edge Mobility Services Node (MSN), for facilitating the mobility of a communication unit during a communication between the communication unit and a host, the host directing information to the communication unit using a higher layer address thereof, the communication established over a tunnel switched path, the tunnel switched path associated with the communication unit using a lower layer address thereof, the tunnel switched path carrying information associated with the communication between the communication unit and the host, the method comprising:

determining that a move of the communication to an adjacent MSN is desired to facilitate the mobility of the communication unit;

initiating a modification of the tunnel switched path to a modified tunnel switched path associated with the adjacent MSN and the lower layer address while the information is transferred to the edge MSN on the tunnel switched path; and

releasing the tunnel switched path after the modified tunnel switched path is established and supporting the communication on the modified tunnel switched path.

2. A method according to claim 1, further comprising discovering at least the adjacent MSN and an intermediate MSN, the adjacent MSN and the intermediate MSN capable of facilitating the mobility of the communication unit by being capable of establishing at least a portion of the modified tunnel switched path.

3. A method according to claim 1, wherein the lower layer address includes a MAC address.

4. A method according to claim 1, wherein the determining includes determining that a signal parameter for a signal between the communication unit and the edge MSN does not satisfy a threshold value.

5. A method according to claim 1 wherein the initiating the modification of the tunnel switched path further comprises sending a handover request to the adjacent MSN and receiving a handover request acknowledgment from the adjacent MSN.

6. A method according to claim 1 wherein the releasing the tunnel switched path further comprises receiving a handover complete message from the adjacent MSN after the communication unit is being served by the adjacent MSN.

7. A method, in an edge Mobility Services Node (MSN), for facilitating the mobility of a communication unit during a communication between the communication unit and a host, the communication established over a tunnel switched path, the tunnel switched path associated with an adjacent MSN and the communication unit using a lower layer address thereof, the tunnel switched path carrying information associated with the communication between the communication unit and the host, the method comprising:

determining that a move of the communication to the edge MSN from the adjacent MSN is desired for the mobility of the communication unit;

establishing a modification of the tunnel switched path to a modified tunnel switched path associated with the edge MSN and the lower layer address while the information is transferred to the adjacent MSN on the tunnel switched path; and

establishing the communication over the modified tunnel switched path before the tunnel switched path is released.

8. A method according to claim 7, further comprising discovering an intermediate MSN that is capable of facilitating the mobility of the communication unit by being capable of establishing at least a portion of the modified tunnel switched path.

9. A method according to claim 7, wherein the lower layer address includes a MAC address.

10. A method according to claim 7, wherein the determining includes receiving an indication that a signal related parameter associated with a signal at the communication unit does not satisfy a threshold value.

11. A method according to claim 7, wherein the establishing the modification of the tunnel switched path further comprises receiving a handover request from the adjacent MSN, sending an establish request to an intermediate MSN, and receiving an establish response from the intermediate MSN.

12. A method according to claim 11, wherein the establishing the communication over the modified tunnel switched path further comprises sending a handover request acknowledgment to the adjacent MSN, associating with the communication unit, sending a handover complete message to the adjacent MSN, and receiving a handover complete acknowledgment from the adjacent MSN.

13. A method, in an intermediate Mobility Services Node (MSN), for facilitating the mobility of a communication unit during a communication between the communication unit and a host, the communication established over a tunnel switched path, the tunnel switched path associated with the communication unit using a lower layer address thereof, the tunnel switched path carrying information associated with the communication between the communication unit and the host, the method comprising:

processing a message associated with a modification of a downstream portion of the tunnel switched path from between the intermediate MSN and a first MSN to between the intermediate MSN and an adjacent MSN;

modifying the downstream portion of the tunnel switched path to establish a modified tunnel switched path associated with the adjacent MSN and the lower layer address;

transferring the information to the adjacent MSN on the modified tunnel switched path; and

releasing the downstream portion of the tunnel switched path after the modified tunnel switched path is established.

14. A method according to claim 13, further comprising discovering other MSNs that are capable of facilitating the mobility of the communication unit by being capable of establishing at least a portion of the modified tunnel switched path.

15. A method according to claim 13, wherein the lower layer address includes a MAC address.

16. A method, in an anchor Mobility Services Node (MSN), for facilitating the mobility of a communication unit during a communication between the communication unit and a host, the communication established over a tunnel switched path, the tunnel switched path including an edge MSN, the tunnel switched path associated with the communication unit using a lower layer address thereof, the tunnel switched path carrying information associated with the communication between the communication unit and the host, the method comprising:

receiving the information from the host, the information directed from the host to the communication unit using an IP address thereof, and directing the information to the communication unit on the tunnel switched path using the lower layer address; and

directing the information from the host to the communication unit using an IP address thereof on a modified tunnel switched path using the lower layer address;

wherein the modified tunnel switched path includes an adjacent MSN.

17. A method according to claim 16, further comprising discovering at least the adjacent MSN and an intermediate MSN, the adjacent MSN and the intermediate MSN capable of facilitating the mobility of the communication unit by being capable of establishing at least a portion of the modified tunnel switched path.

18. A method according to claim 16, wherein the lower layer address includes a MAC address.

19. A Mobility Services Node (MSN) for facilitating the mobility of a communication unit during a communication between the communication unit and a host, the host directing information to the communication unit using a higher layer address thereof, the communication established over a tunnel switched path, the tunnel switched path associated with the communication unit using a lower layer address thereof, the tunnel switched path carrying information associated with the communication between the communication unit and the host, the apparatus comprising:

a radio resource;

a memory; and

a processor coupled to the memory and the radio resource, the memory storing instructions for causing the processor to:

determine that a move of the communication is desired to facilitate the mobility of the communication unit;

initiate a modification of the tunnel switched path to a modified tunnel switched path associated with the lower layer address while the information is transferred on the tunnel switched path; and

release the tunnel switched path after the modified tunnel switched path is established and supporting the communication on the modified tunnel switched path.

20. An MSN according to claim 19, wherein the instructions further cause the processor to discover other MSNs that are capable of facilitating the mobility of the communication unit by establishing a portion of one of the tunnel switched path and the modified tunnel switched path.

21. An apparatus according to claim 19, wherein the lower layer address includes a MAC address.

21. An MSN according to claim 19, wherein the instructions, in causing the processor to determine, further cause the processor to receive an indication from the radio resource that a signal parameter associated with a signal at the communication unit does not satisfy a threshold value.

22. An MSN according to claim 19 operating as a serving edge MSN wherein the processor caused to initiate the modification of the tunnel switched path is further caused to send, via the radio resource, a handover request to an adjacent MSN and receive a handover request acknowledgment from the adjacent MSN.

23. An MSN according to claim 1 operating as a serving edge MSN wherein the processor caused to release the tunnel switched path is further caused to receive, via the radio resource, a handover complete message from an adjacent MSN after the communication unit is being served by the adjacent MSN.

24. An MSN according to claim 19, operating as an edge MSN to accept a handover of the communication with the communication unit wherein the processor caused to initiate the modification is further caused to establish the modification of the tunnel switched path by cooperatively operating with the radio resource to receive a handover request from an adjacent serving edge MSN, send an establish request to an intermediate MSN, and receive an establish response from the intermediate MSN.

25. An MSN according to claim 24, wherein the processor is caused to release the tunnel switched path by cooperatively operating with the radio resource to send a handover request acknowledgment to the adjacent serving MSN, associate with the communication unit, send a handover complete message to the adjacent MSN, and receive a handover complete acknowledgment from the adjacent MSN.